



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/034,453 03/04/98 HEIN

J SILA:019

WM02/0411

RICHARD D EGAN
JONES O'KEEFE & EGAN
1101 CAPITAL OF TEXAS HIGHWAY SOUTH
BUILDING C SUITE 200
AUSTIN TX 78746

EXAMINER

SINGH, R

ART UNIT

PAPER NUMBER

2644

DATE MAILED:

04/11/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/034,453

Applicant(s)

HEIN ET AL.

Examiner

Dr. Ramnandan Singh

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 1998.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Specification

Content of Specification

2. (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.

The specification must begin with the title, "Cross-References to Related Applications:" In addition, the specification, on page 1, lines 12-19, "Serial No. -----
-----" are blank. These need to be filled in.

Appropriate corrections are required.

3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

4. The abstract recites "the present invention **may** utilize ring detection" on line 2.; "the ring detection circuitry **may** include" on line 3; "the ringing circuit **may** be provided " on line 9; and "the ring detection function **may** be accomplished" on line 10. The language "may utilize" is not a definite language to indicate whether the ring detection circuitry ' is necessary for the invention. The same things hold for other "may" also.

It is suggested that these "may" be deleted.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites limitations "phone line side circuitry that **may** be coupled to phone lines" on line 2, and "powered side circuitry that **may** be coupled to the phone line side circuitry" on line 3. The language "may be coupled " is not a definite language to indicate whether "phone line circuitry" is necessary to be coupled to "phone lines", and whether "powered side circuitry " is necessary to be coupled to "phone line side circuitry" through an isolation barrier.

Claims 12, 13, and 18 are rejected with a similar reason set forth for claim 1. It is suggested that these "may" be deleted.

Claim 9 recites "at least in part be powered" on line 2. The language "at least in part " is not a definite language to indicate what part is powered.

Claim 22 recites "at least a portion of the second integrated circuitry " on line 1. The language "at least a portion of " is not a definite language to indicate what portion of the integrated circuitry is powered.

Since claims 2-11, 13-17, 19-24 are dependent claims on the rejected claims 1, 12, and 18. Hence claims 2-11, 13-17, 19-24 are also rejected.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper time wise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1- 20 of U. S. Patent No. US 6,104,794. Further, the specification and Figs. 1-21 of the instant application are

Art Unit: 2644

identical with that of U. S. Patent No. US 6,104,794. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-20 of U. S. Patent No. US 6,104,794 encompass the limitations of claims 1-24 of the instant application. In addition, omission of a reference element whose function is not needed would be obvious to one of ordinary skill in the art. It is well settled that the omission of an element and its function is an obvious expedient if remaining elements perform the same function as before. In re Karlson, 163 USPQ (CCPA, 1963). Also note Ex parte Rainu, 168 USPQ 375 (Bd. Appl. 1969).

9. Claims 1-3, 6-7, 12-13, and 19-21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-5, 8, 11 and 16 of copending Application No. 09/034,455. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 3-5, 8, 11 and 16 encompass the limitations of claims 1-3, 6-7, 12-13, and 19-21 of the instant application. In addition, omission of a reference element whose function is not needed would be obvious to one of ordinary skill in the art. It is well settled that the omission of an element and its function is an obvious expedient if remaining elements perform the same function as before.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-11 and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hershberger et al [US 5,564,984] in view of Apfel [US 5,694,465] and further in view of Zanders [US 5,258,721].

As per claims 1, 2, 6, 18, 19:

Hershberger et al teaches a communication system and a method for a high voltage isolation between a phone line side circuitry and a powered side circuitry. This is basically a data access arrangement (DAA) for a telephone line interface. It allows bidirectional communication of an audio signal across the isolation barrier being a capacitive barrier [Figs. 2-4; 6B; 7A-7C; col. 2, lines 17-67; col. 3, lines 1-29; col. 4, lines 1-58].

As per claims 3-5, 7, 20, 21:

Hershbarger et al discloses bidirectional communications across the isolation barrier through digital signals. The isolation barrier comprises capacitors [Figs. 2, 9, 10; col. 2, lines 59-67; col. 3, lines 1-5; col. 4, lines 20-58].

As per claims 8-11 and 22-24:

Hershbarger et al teaches the digital communications system across the isolation barrier [Figs. 8A, 8B, 9; col. 6, lines 7-67; col. 7, lines 1-67].

Hershbarger et al does not teach expressly an integrated ringer circuitry and a ringer burst detection circuitry.

Apfel teaches an apparatus for coupling a subscriber line with a digital signal path in a telephone system. In addition, it discloses an integrated ringer circuitry [Figs. 3-6; col. 4, lines 35-67; col. 5, lines 65; col. 13, lines 22-67; col. 14, lines 1-67; col. 15, lines 1-10; col. 18, lines 43-67; col. 19-22].

Zanders discloses a ringer burst detection circuitry [Figs. 1a, 4, 10, 22; col. 3, lines 48-52; col. 5, lines 8-15; col. 6, lines 60-67; col. 7; lines 1-5; col. 15; lines 30-44] and a ringer timing circuitry [Figs. 6b, 7-9, 18, 20, 23-24; col. 8, lines 7-39].

Hershbarger et al, Apfel and Zanders are analogous art because they are from a similar problem solving are, viz., a data access arrangement in telecommunications.

At the time of the invention , it would have been o a person of ordinary skill in the art to combine the integrated ringer circuitry of Apfel and the ring signal detection circuitry of Zanders with the Hershbarger et al system.

The suggestion/motivation for doing this would have been to use an integrated ringer circuit and the ring signal detection circuit to provide balanced ringing signals to the subscriber telephone device [Apfel; Abstract].. This would have helped further improve the Hershbarger et al system as a DAA system.

Therefore, it would have obvious to combine Apfel and Zanders with the Hershbarger et al system to obtain the invention as specified in claims 1-11 and 18-24.

12. Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hershbarger et al [US 5,564,984] in view of Apfel [US 5,694,465] and further in view of Zanders [US 5,258,721].

As per claims 12:

Hershbarger et al teaches an audio communication system for a high voltage isolation between a phone line side circuitry and a powered side circuitry. It discloses bidirectional communications across the isolation barrier through digital signals This is

Art Unit: 2644

basically a data access arrangement (DAA) for a telephone line interface [Figs. 2-4; 6B; 7A-7C, 9-10; col. 2, lines 17-67; col. 3, lines 1-29; col. 4, lines 1-58].

As per claims 13-17:

Hershbarger et al teaches a ring detection amplifier [FIG. 7(B) (element 719); col. 10, lines 1-56].

Hershbarger et al does not teach expressly an integrated ringer circuitry and a ringer burst detection circuitry.

Apfel teaches an apparatus for coupling a subscriber line with a digital signal path in a telephone system. In addition, it discloses an integrated ringer circuitry [Figs. 3-6; col. 4, lines 35-67; col. 5, lines 65; col. 13, lines 22-67; col. 14, lines 1-67; col. 15, lines 1-10; col. 18, lines 43-67; col. 19-22].

Zanders discloses a ringer burst detection circuitry [Figs. 1a, 4, 10, 22; col. 3, lines 48-52; col. 5, lines 8-15; col. 6, lines 60-67; col. 7; lines 1-5; col. 15; lines 30-44] and a ringer timing circuitry [Figs. 6b, 7-9, 18, 20, 23-24; col. 8, lines 7-39].

Hershbarger et al, Apfel and Zanders are analogous art because they are from a similar problem solving are, viz., a data access arrangement in telecommunications.

At the time of the invention , it would have been o a person of ordinary skill in the art to combine the integrated ringer circuitry of Apfel and the ring signal detection circuitry of Zanders with the Hershbarger et al system.

The suggestion/motivation for doing this would have been to use an integrated ringer circuit to provide balanced ringing signals to the subscriber telephone device [Apfel; Abstract].. This would have helped further improve the Hershbarger et al system as a DAA system.

Therefore, it would have obvious to combine Apfel and Zanders with the Hershbarger et al system to obtain the invention as specified in claims 12-17.

13. Claims 1-11 encompass all the limitations of claims 12-17.

This has been demonstrated in paragraph 11 supra.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Alternatively, (I) Reyes et al [US 5,361,296] for a ring burst circuit.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Ramnandan Singh whose telephone number is (703)308-6270. The examiner can normally be reached on M-F(8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester Isen can be reached on (703)-305-4386. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-5403 for regular communications and (703)306-5631 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

Dr. Ramnandan Singh
April 3, 2001



FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2700